

In the specification:

[0024] Referring now to the drawings, FIG. 1 depicts a traditional burner column 11 of staged fuel radiant wall burners 10. The staged fuel radiant wall burners 10 consist of radiant wall burner tips 12 which are provided with a fuel gas lean mixture of primary fuel gas and air. Secondary fuel gas risers 14 supply the secondary fuel gas tips 16 thereof with fuel gas. The location of the secondary fuel gas tips 16 is typically in the centers of the radiant wall burner tips 12 as shown in FIG. 1, or around the perimeters of the radiant wall burner tips 12. As shown in FIG. 1, the fuel gas-air streams exiting the burner tips 12 form barriers 18 and 20 and encapsulate or surround the secondary fuel gas 22. The fuel gas-air barriers 18 and 20 around the secondary fuel gas 22 prevents prevent sufficient entrainment of flue gas 24 resulting in increased NO<sub>x</sub> emissions.